

**Proposed Interior Dust Sampling Protocols
Anaconda Public Schools**

**U.S. Environmental Protection Agency
January 10, 2018**

Three types of dust samples to be collected:

- **Floor Mat Sampling inside School Entryways.** The school currently uses floor mats just inside the buildings at points of entry to reduce the tracking of dirt through the interiors. Replacement mats will be put in place the week prior to the interior sampling to collect samples under typical conditions to determine if arsenic and/or lead are being tracked into the schools. This will be useful information should concentrations of arsenic and/or lead be found above the residential cleanup levels in the interior samples. Results from floor mat sampling are intended to provide information on the potential source of those contaminants (interior versus exterior) not to measure exposure.
- **Floor Surface Sampling in Typically Accessible Areas.** A representative number of floors will be vacuumed under typical conditions to obtain dust samples for analysis of arsenic and lead in readily accessible interiors within the schools. These data will be compared to residential cleanup levels to determine if arsenic and/or lead is present in concentrations exceeding cleanup levels. If dust is not present in sufficient concentrations to sample or if the concentrations are below the residential cleanup levels, there is no excess exposure and no additional investigation will be required of the school interiors.
- **Surface Sampling in Typically Accessible Areas.** Representative surface areas will be sampled to determine if potential sources of contamination are present in these spaces. The majority of samples will come from accessible areas. A small percentage will be from typically inaccessible spaces (air vents, the tops of I beams, etc.). Surface sampling results will be used to determine if arsenic and/or lead is present in concentrations exceeding cleanup levels.

Schedule:

- Replacement floor mats placed after school on Monday, March 19.
- Dust sampling the week of March 26 (spring break)
- Preliminary results available late April/early May

Equipment:

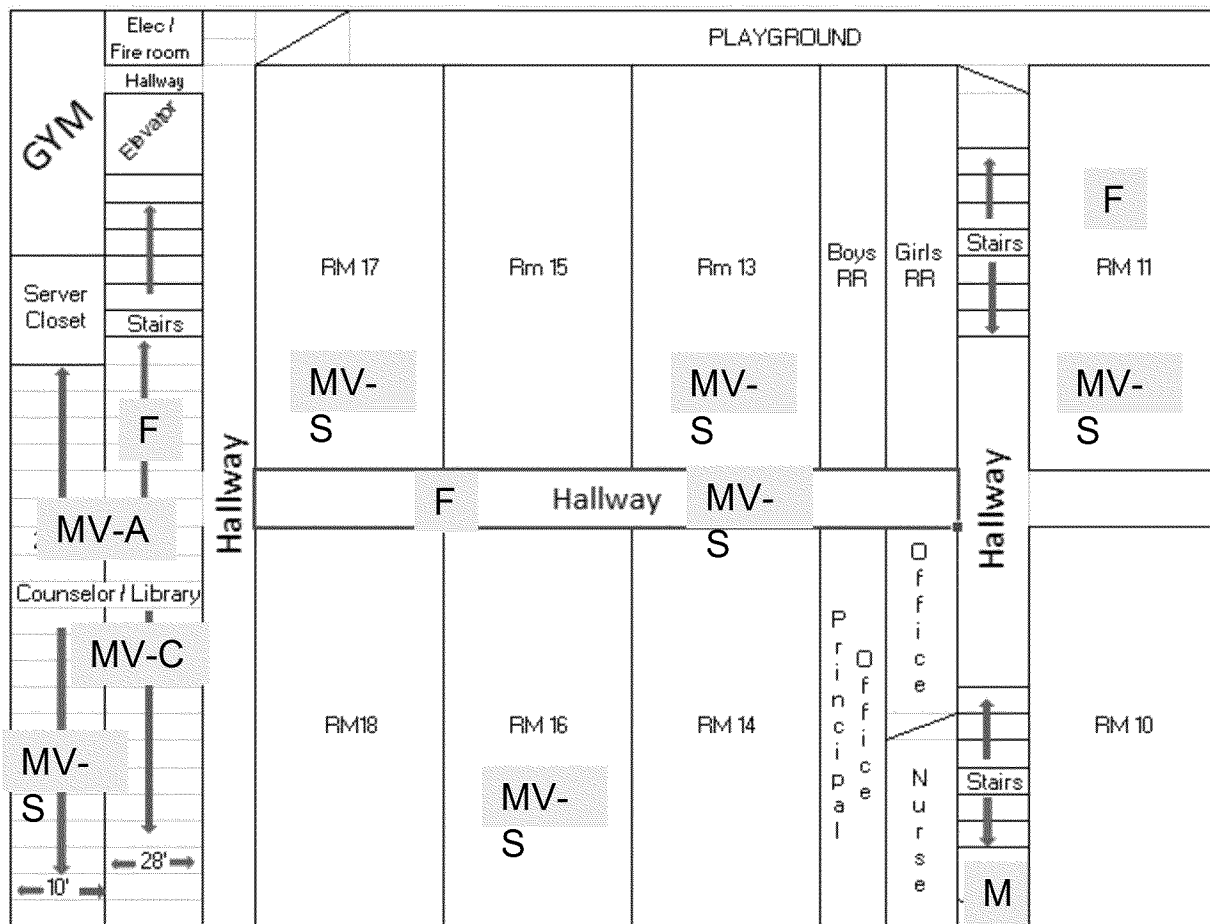
- **Envirometrics High Volume Small Surface Soil Sampler (HVS3).** Designed for EPA to specifically collect dust for the measurement of concentrations of parameters of interest (e.g., lead and arsenic). To be used for floor and floor mat dust samples.
- **Gilian HF3 113A Micro-Vacuum.** Micro-vacuum sampling is designed to collect dust using a collection nozzle attached to a filter holder (sampling cassette) that is connected to an air sampling pump. To be used for surface sampling where uniform flat spaces such as floors are not present.

Exhibit B-1. Summary of Activity and Sampling by Task

Task	Time Frame	School	Locations				# of Samples*
			Basement/ Ground Floor	1st Floor	2 nd Floor	Other	
Task 1 - Floor mat sampling	Mar ch 8 to 12	Lincoln	NA	Main door	NA	Ada Gym?	1?
		Moodry	NA	Main door	NA	NA	1
		High	Main door	NA	NA	NA	1
		Memoria I	NA	Main door	NA	NA	1
		Subtotal for All Schools – Floor Mat Sampling					
Task 2 - Floor surface sampling	Mar ch 22 to 26, 201 8	Lincoln	▪ NA	▪ Rm 11 ▪ Hall ▪ Counselor	▪ Rm 23 ▪ Staff lounge ▪ Hall	▪ Stage/classroom ▪ Ball court	8
		Moodry	▪ Cafeteria ▪ PE room boys ▪ IT Lab	▪ Stage ▪ Gym ▪ Hall	▪ Rm 20, 22, & 25	▪ Rms 30 & 34 ▪ 3 rd Floor hall	12
		High	▪ Cafeteria ▪ Theater ▪ Band room ▪ Hall	▪ Rms 201 & 207 ▪ Library ▪ Hall	▪ Rooms 301, 308, & 312 ▪ 3 rd Floor hall	▪ NA	12
		Memoria I	▪ S. Office ▪ Locker Rm A	▪ Ball court	▪ NA	▪ NA	3
		Subtotal for All Schools – Floor Sampling					
Task 3 - Surface sampling		Lincoln	▪ NA	▪ Rms 11, 13, 16, & 17 ▪ Hall ▪ Counselor (S, C, + A)	▪ Rms 21, 22, 23, 26, & 27 ▪ Staff lounge ▪ Janitor closet ▪ Hall	Ada Gym ▪ Kitchen ▪ Stage/classroom ▪ Ball court ▪ Air crawl space	20
		Moodry	▪ Cafeteria ▪ Locker room girls ▪ IT Lab ▪ Boy PE class ▪ Boiler room	▪ Hall ▪ Admin offices ▪ Rms 13 & 16 ▪ Office 2 ▪ Gym ▪ Auditorium	▪ Rooms 20, 22, 24, & 25 ▪ Counselor	▪ Rooms 30, 33, & 34 ▪ 3 rd Floor hall	22
		High	▪ Rms 102 (S+C), 105 (S+C), & 107 ▪ Hall ▪ Nurse ▪ Cafeteria ▪ Theater ▪ Band room ▪ BLI Room	▪ Rms 201, 203, 204, 207, 211, & 214 ▪ Office ▪ Hall ▪ Staff lounge	▪ Rms 301, 303, 306, 308 & 312 ▪ Hall ▪ Hatch ▪ Other	▪ NA	28
		Memoria I	▪ Weight Rm ▪ Laundry ▪ S. Office	▪ Ball court ▪ Bleachers ▪ I beams	▪ NA	▪ NA	6
		Subtotal for All Schools – Surface Sampling					
Total for All Schools – All Sampling Types							111

*Does not include QA samples. QA samples are shown in Exhibit B-2.

Lincoln Elementary – 1st Floor



F = Floor samples by HVS3 high-velocity vacuum (3)

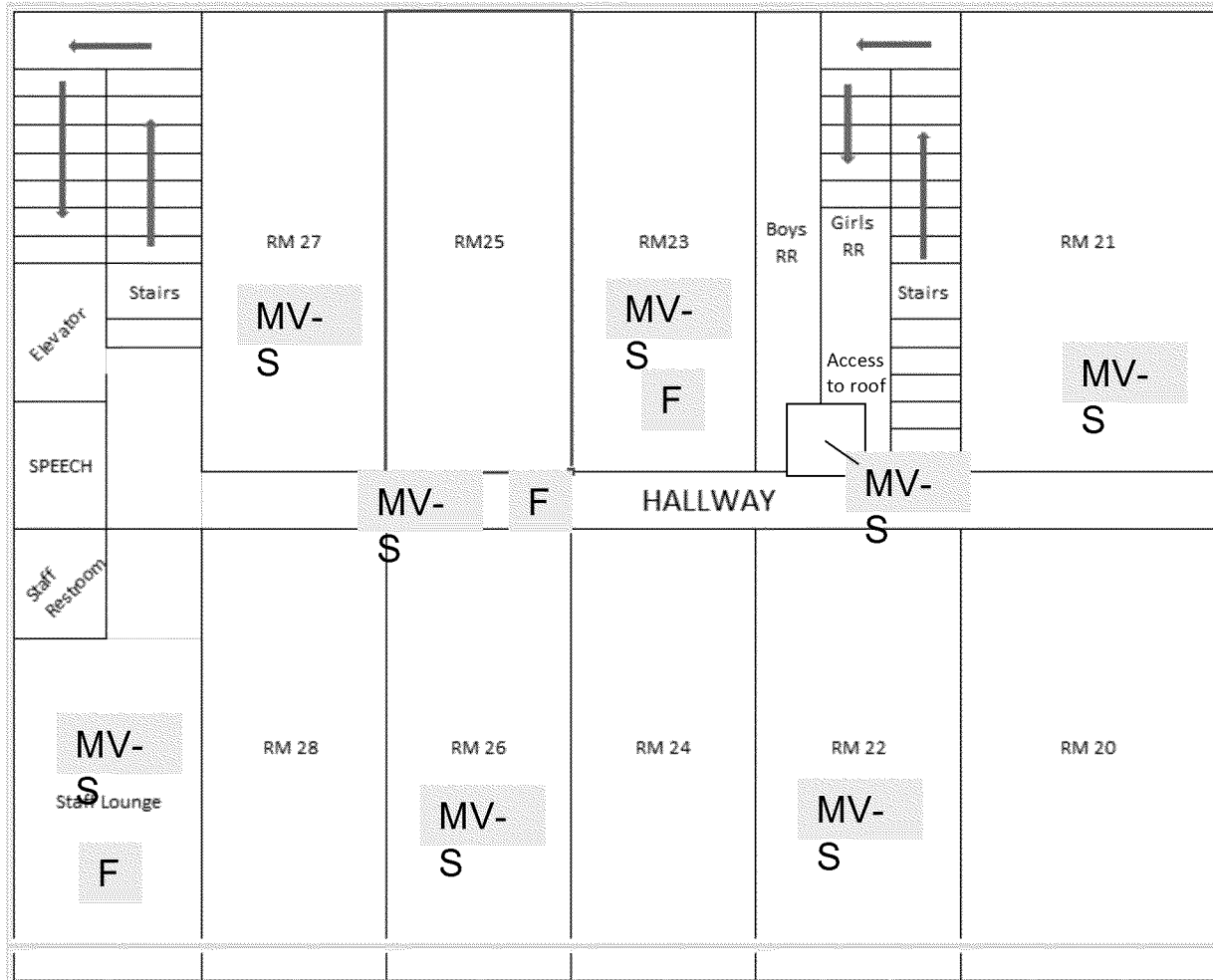
M = Mat samples by HVS3 high-velocity vacuum (1)

MV-S = micro-vacuum surface samples (6)

MV-C = micro-vacuum - top of ceiling tiles (1)

MV-A = micro-vacuum - air vents (1)

Lincoln Elementary – 2nd Floor



F = Floor samples by HVS3 high-velocity vacuum (3)

MV-S = micro-vacuum surface samples (8)

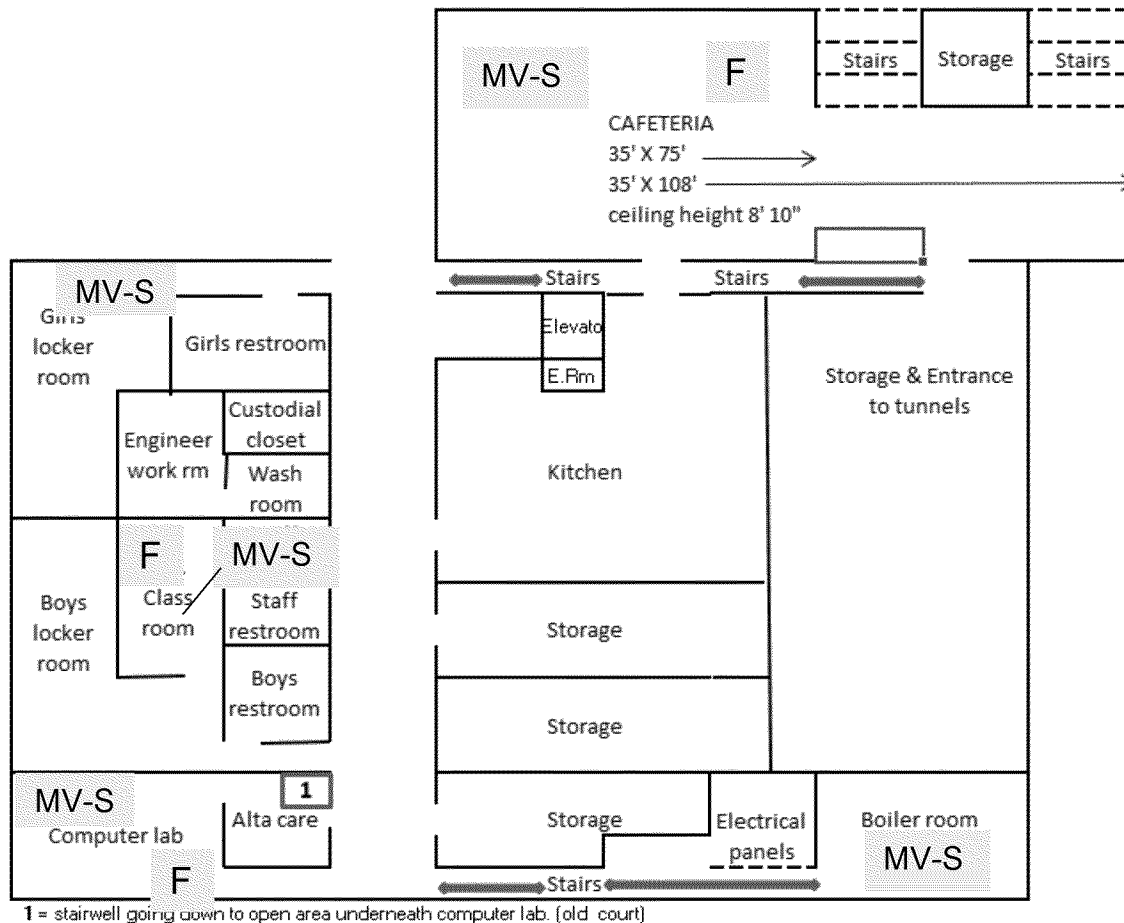
The floor plan shows a large rectangular area divided into several sections. On the left, a long rectangular area is labeled "BLEACHERS". To the right of the bleachers is a large rectangular area labeled "STAGE CLASSROOM". Above the stage classroom is a smaller rectangular area labeled "BOYS AND GIRLS RESTROOMS". To the right of the restrooms is a small rectangular area labeled "MV-S". Below the restrooms is a small rectangular area labeled "STORAGE CLOSET". To the right of the storage closet is a small rectangular area labeled "AIR HANDLER CRAWL SPACE ABOVE CEILING". Below the stage classroom is a small rectangular area labeled "PE OFFICE". To the right of the PE office is a small rectangular area labeled "MV-S". Below the PE office is a small rectangular area labeled "DRY STORAGE". To the right of the dry storage is a small rectangular area labeled "ELEVATOR". To the right of the elevator is a small rectangular area labeled "MV-S". To the right of the MV-S area is a small rectangular area labeled "KITCHEN". To the right of the kitchen is a small rectangular area labeled "MV-S".

Dimensions and details for the bleachers and stage area:

- Bleachers: 50' wide, 19' 9" high, 13' 6" deep.
- Stage: 12' wide, 13' 6" deep, 19' 9" high.
- Stage Classroom: 15' wide, 13' 6" deep, 19' 9" high.
- Boys and Girls Restrooms: 12' wide, 13' 6" deep, 19' 9" high.
- Storage Closet: 12' wide, 13' 6" deep, 19' 9" high.
- Air Handler Crawl Space Above Ceiling: 12' wide, 13' 6" deep, 19' 9" high.
- PE Office: 12' wide, 13' 6" deep, 19' 9" high.
- Dry Storage: 12' wide, 13' 6" deep, 19' 9" high.
- Elevator: 12' wide, 13' 6" deep, 19' 9" high.
- Kitchen: 12' wide, 13' 6" deep, 19' 9" high.

MV-S = micro-vacuum surface samples (4)

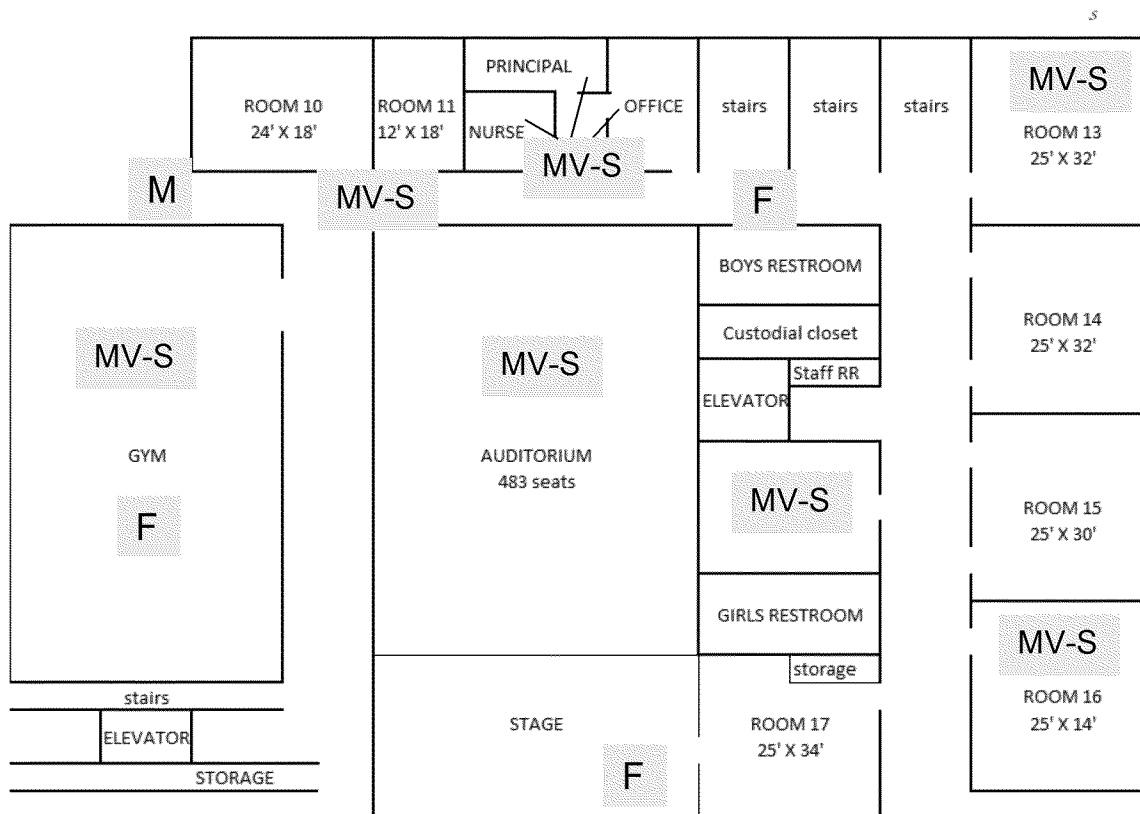
Moodry Middle School – Basement



F = Floor samples by HVS3 high-velocity vacuum (3)

MV-S = micro-vacuum surface samples (5)

Moodry Middle School – 1st Floor

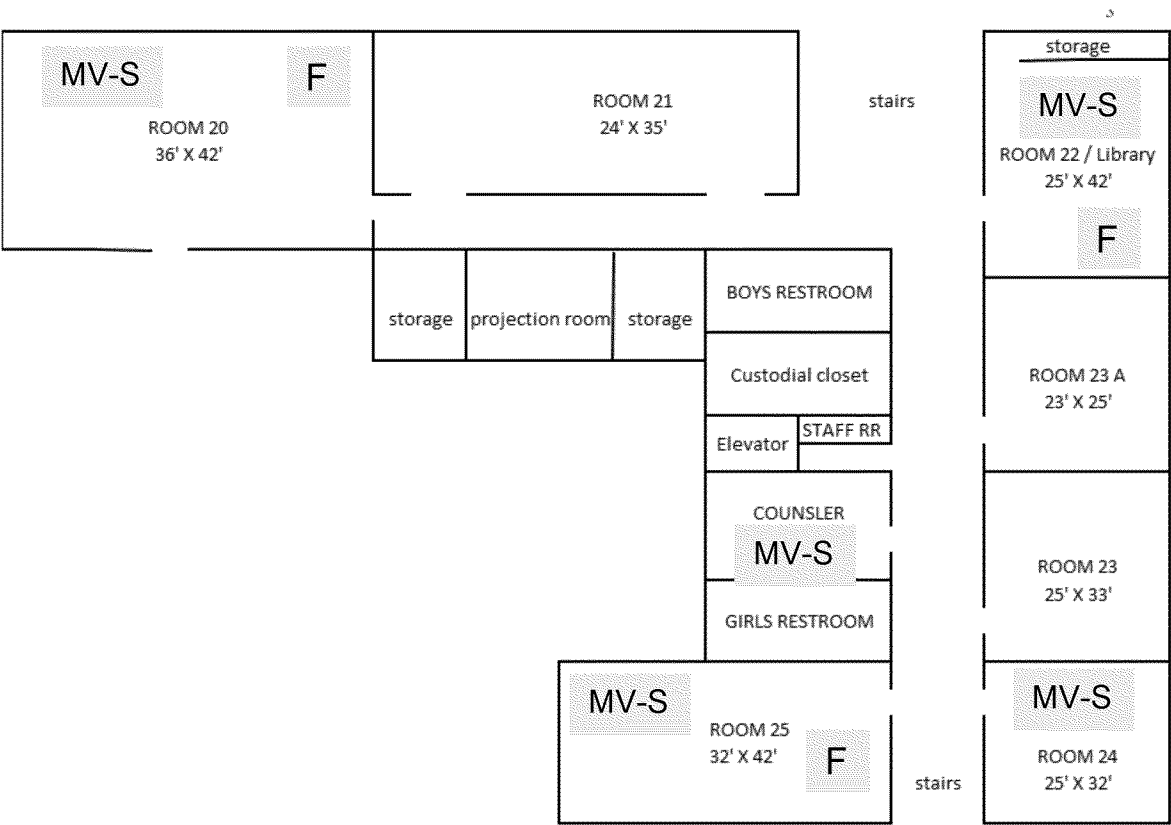


F = Floor samples by HVS3 high-velocity vacuum (3)

M = Mat samples by HVS3 high-velocity vacuum (1)

MV-S = micro-vacuum surface samples (7)

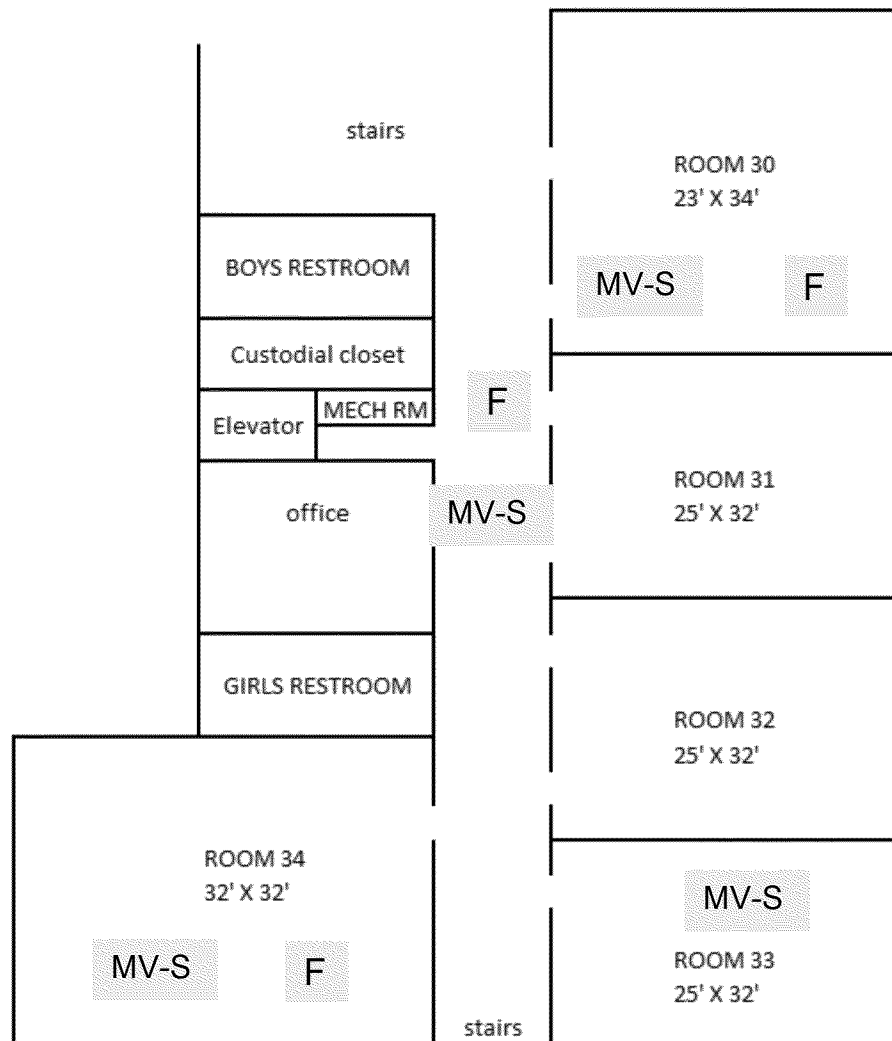
Moodry Middle School – 2nd Floor



F= Floor samples by HVS3 high-velocity vacuum (3)

MV-S = micro-vacuum surface samples (5)

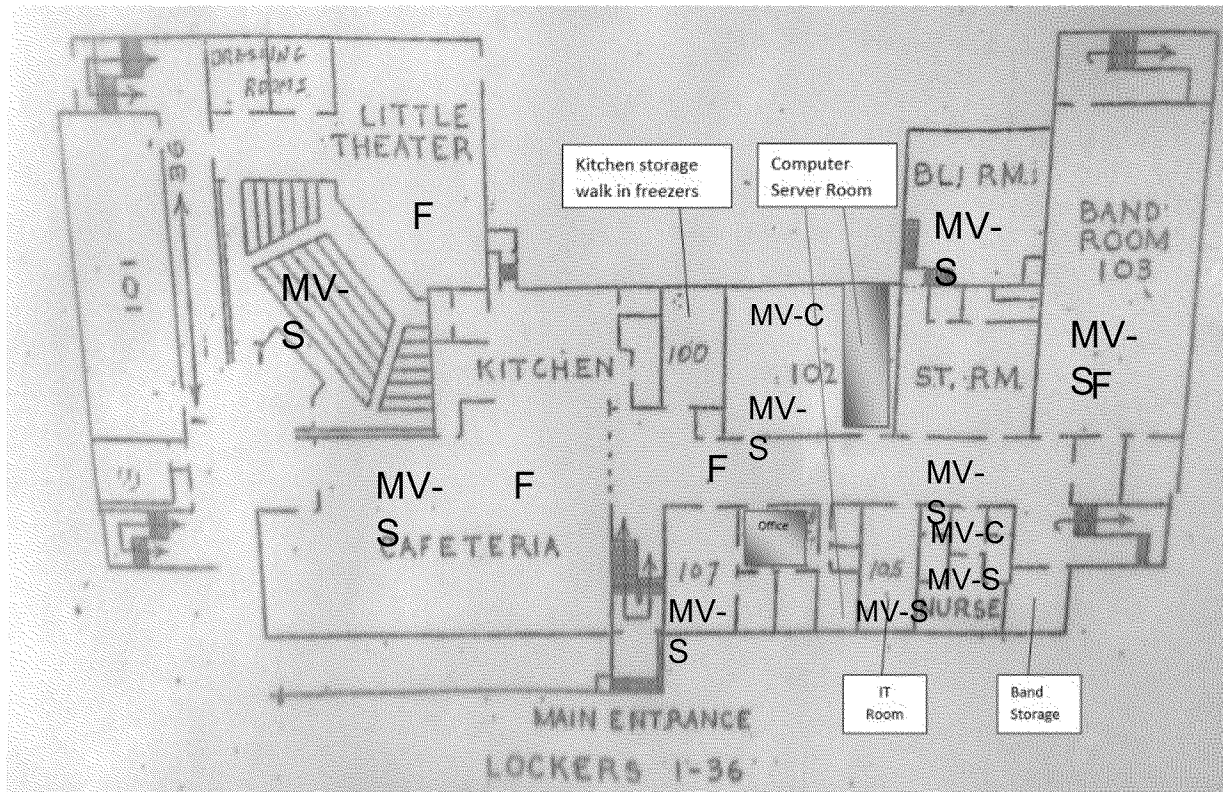
Moodry Middle School – 3rd Floor



F = Floor samples by HVS3 high-velocity vacuum (3)

MV-S = micro-vacuum surface samples (4)

Anaconda High School – Ground Floor



F= Floor samples by HVS3 high-velocity vacuum (4)

M= Mat samples by HVS3 high-velocity vacuum (1)

MV-S = micro-vacuum surface samples (9)

MV-C= micro-vacuum - top of ceiling tiles (2)

Floor plan of the second floor of the building. The plan shows various rooms and their locations. A legend identifies room types: Staff Lounge, Copy room, Storage / Men's Restroom, and Women's Restroom. Rooms are labeled with numbers and letters, and some are marked with 'MV-S' or 'F'.

Legend:

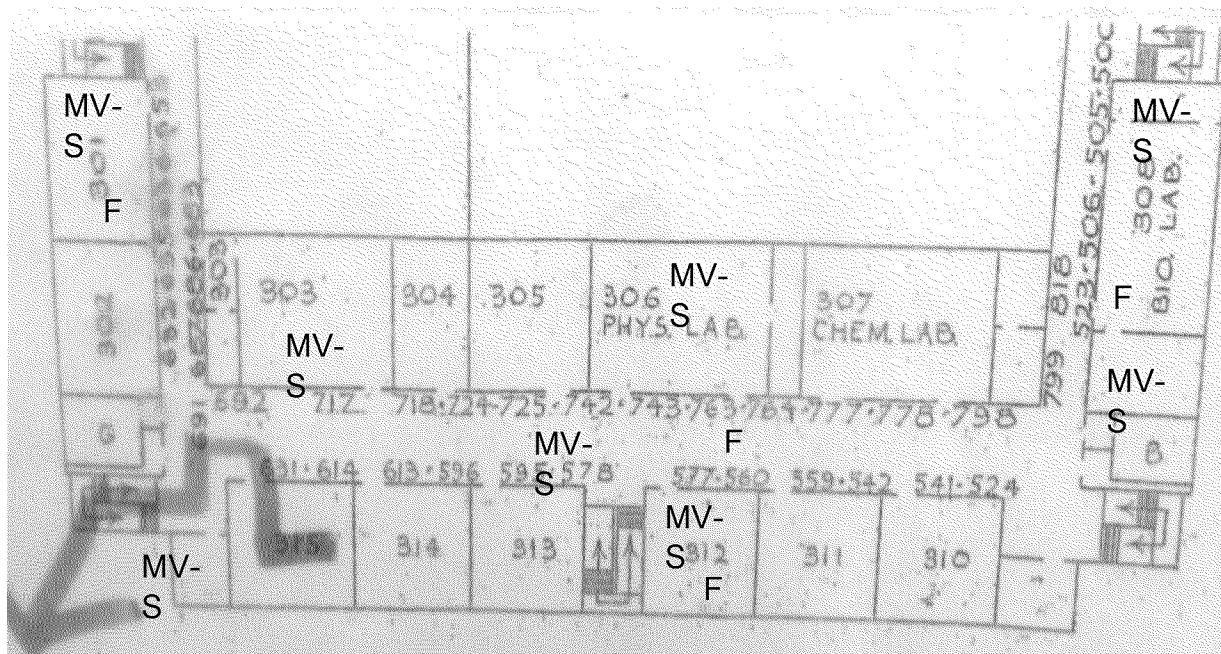
- Staff Lounge
- Copy room
- Storage / Men's Restroom
- Women's Restroom

Rooms and locations marked on the plan:

- Room 203: MV-S
- Room 204: LIBRARY, F
- Room 205: F
- Room 206: MV-S
- Room 207: MV-S
- Room 208: MV-S
- Room 209: MV-S
- Room 210: MV-S
- Room 211: MV-S
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- Room 48

MV-S = micro-vacuum surface samples (9)

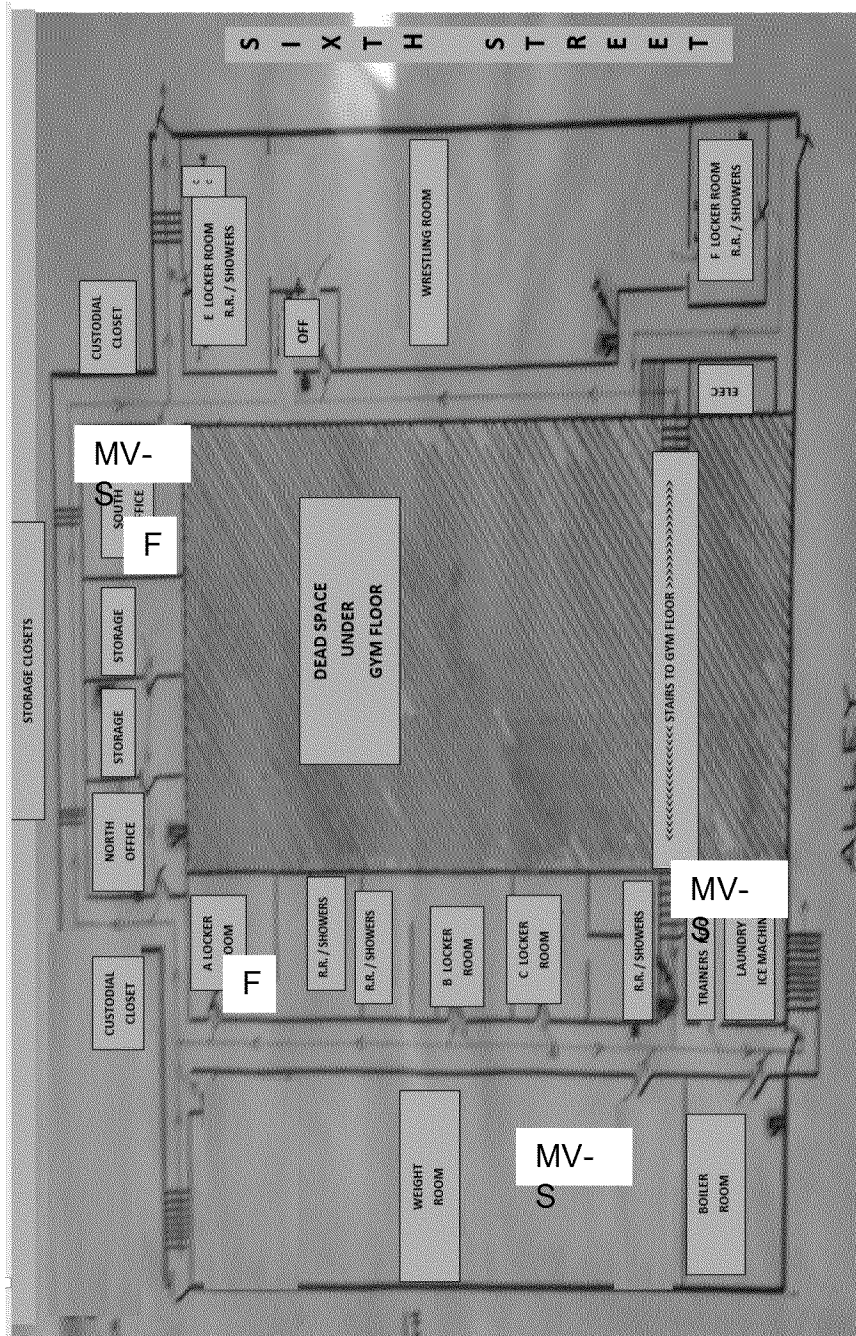
Anaconda High School – 2nd Floor



F = Floor samples by HVS3 high-velocity vacuum (4)

MV-S = micro-vacuum surface samples (8)

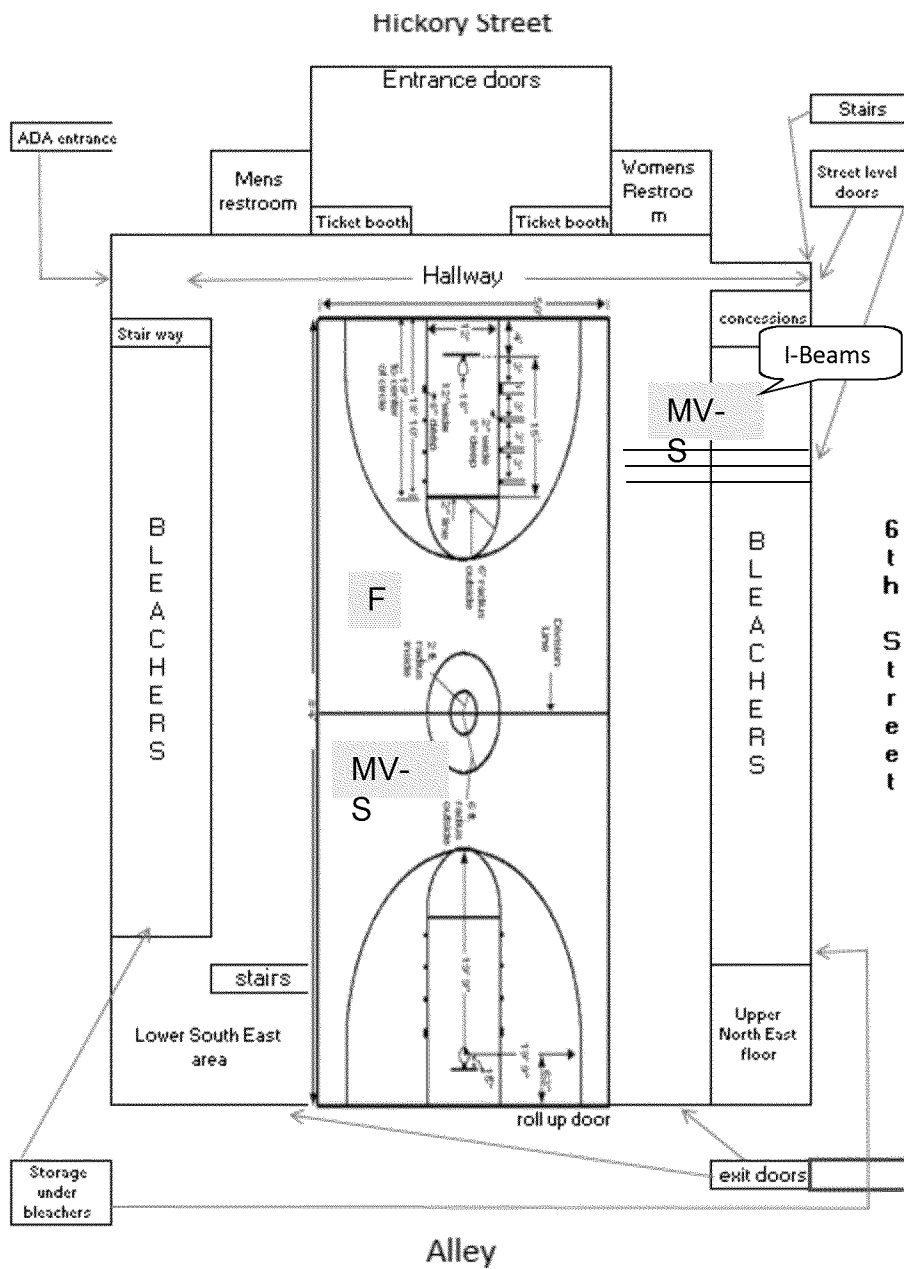
Memorial Gym – Basement Floor



F = Floor samples by HVS3 high-velocity vacuum (2)

MV-S = micro-vacuum surface samples (3)

Memorial Gym – Main Floor



F = Floor samples by HVS3 high-velocity vacuum (1)

MV-S = micro-vacuum surface samples (3)